

13

THE BOTANICAL FINE ART WEEKLY.  
Subscription Price \$30.00 per Annum. Single Copies \$1.00



# THE WILD FLOWERS OF AMERICA



Vol. I., No. 13.

PUBLISHED WEEKLY BY G. H. BUEK & CO.

Aug. 7th, 1894.

203 Broadway, New York.

ENTERED AT NEW YORK POST OFFICE, AS SECOND CLASS MATTER.





# Wisdom, Kindness and Appreciation.

.....

**T**HE most precious attribute in man is wisdom or common sense. Brilliancy pales before it. In every walk of life there is brought home to us every day the value of wisdom. There are people in the world who outstrip their neighbors and competitors in every rivalry. They look at things with keener appreciation; they know things better and

as it were by instinct. These people are generally credited with wisdom. They usually have knowledge. If an invention of striking value comes out they secure it. If a book of surpassing merit is issued they buy it, and the sum of it all is, these people get ahead and the others don't know why. The way the knowing ones are buying the portfolios of "WILD FLOWERS OF AMERICA" is the latest instance, striking and convincing. These people know just as well as if they saw the tangible evidence that they will never have an opportunity to get these portfolios at the nominal figure for which they are now securing them, and the consequence is the wise of both sexes and all ages who know about them are buying them. That's Wisdom.

## KINDNESS.

Next to Wisdom and a beautiful companion for it—is Kindness. There are tens of thousands who have not had the opportunity of seeing the announcements of the Wild Flower portfolios, and would have missed them

entirely had it not been for the KINDNESS of others telling and writing to friends, informing them how and where they can get them. Thousands of these are cutting out coupons and sending them to friends. Isn't this KINDNESS? It is kindness that will be appreciated more and more as the years roll by, when many a man and woman will be heard to say, "I would not have had the 'Wild Flowers of America' if it had not been for my good friend ——." Kindness endureth. Perhaps some others will let their friends know that for a short, short time back numbers of "Wild Flower" portfolios may be procured through the same medium.

## APPRECIATION.

Here follow a few extracts from letters received giving evidence of appreciation. And so this great work is passing on, and millions will lament the lost opportunity when it is too late.

"Wild Flowers of America" fill a long-felt want.

**Amos J. Cummings,**

*U. S. Congressman.*

"Wild Flowers of America" carried out with the enthusiasm of a botanist and the skill of an artist.

**Professor W. Wilson,**

*Chairman U. S. Committee Ways and Means.*

Nothing that has come under my notice is to be compared with the "Wild Flowers of America," by G. H. Buek & Co.

**W. T. Harris,**

*Chairman U. S. Bureau Education, Washington.*

"Wild Flowers of America" for the first time places the native flowers of the United States within the reach of every man, woman and child of our land.

**Amos J. Cummings.**

Regarding "Wild Flowers of America," by G. H. Buek & Co., while there are a number of works in which a few of our more conspicuous plants are figured, there is none so far as I know that is so exhaustive as this.

**Professor F. H. Knowlton,**

*Department of Botany, Smithsonian Institution, Washington.*

"Wild Flowers of America," by G. H. Buek & Co., is a happy idea.

**Professor W. Wilson,**

*Chairman U. S. Committee Ways and Means, Washington.*



— 193 —  
 PICKEREL-WEED.  
*PONTERDERIA CORDATA.*  
 JULY—SEPT



— 194 —  
 PAINTED CUP.  
*CASTILLEIA COCCINEA.*  
 JUNE—JULY.



PLATE 193.

PICKEREL-WEED. PONTEDERIA CORDATA. (PICKEREL-WEED FAMILY.)

*Aquatic; stem and long-petioled root-leaves rising from a stout, creeping root-stock; stem-leaf solitary, rather long-petioled, the base of the petiole sheathing the stem; ovate, heart-shaped at base, obtuse at apex; flowers in a terminal spike from a sheathing bract; perianth irregular, funnel-shaped, two-lipped, of six partly united segments.*

"July 1, 1852.—The rich violet purple of the Pontederias was the more striking as the blossoms were still rare. Nature will soon be very lavish of this blue along the river sides. It is a rich spike of blue flowers with yellowish spots. Over all these flowers hover devil's needles in their zig-zag flight."—THOREAU, "Summer."



MORE striking and characteristic water-plant than the Pickerel-weed is not found in North America. Throughout the eastern part of the continent, as far westward as the Canadian Northwest, Minnesota and Texas, the Pontederia grows. It is for the most part a coast plant, common along the Atlantic seaboard and the Gulf. 'Tis comparatively rare in the interior. No one plant among the denizens of our ponds and shallow, sluggish streams, is more distinctly individual: No other goes so far in giving tone and character to our aquatic vegetation.

"Gold-moth-haunted beds of Pickerel-flower," make bright the surface of the trout-haunted pond in the forests of Canada and Maine, and gladden the dark bosom of the Georgia pine-barren pool. In the southern part of its range, the Pickerel-weed commences to blossom late in May, and in the North it is still flowering in September. The individual blossoms last only a short time, but it is a long while before all in the cluster have expanded.

PLATE 194.

PAINTED CUP. CASTILLEIA COCCINEA. (FIGWORT FAMILY.)

*Root parasitic; stems branching from near the base, erect, somewhat angled, pubescent, often purplish; root-leaves rosulate, oblong-obovate to spatulate; stem leaves alternate, lobed, or parted; flowers in terminal, bracted spikes; bracts usually scarlet, more conspicuous than the yellow and red, deeply two-lipped corolla.*

"The fresh savannas of the Sangamon  
Here rise in gentle swells, and the long grass  
Is mixed with rustling hazels. Scarlet tufts

Are glowing in the green, like flakes of fire;  
The wanderers of the prairie know them well,  
And call that brilliant flower the Painted Cup."—BRYANT.



THE interchangeability of parts to be observed in the plant-life of glade and meadow is very striking. In the Trillium, for example, whether a petal shall remain a petal, or slide back to its first estate as a leaf, is a matter wholly within the decision of a heavy rain-fall. In many blossoms it is the calyx, in many others the corolla, that is gaudily painted as the inn-sign for hungry and thirsty insects. In a third and large class of plants we find the brightest color is lavished not on the blossoms at all, but on the leaves that subtend the flower or cluster of flowers. In many Euphorbias the floral leaves are tinged with brilliant hues while the flowers themselves are insignificant. In the often cultivated Euphorbia Marginata, now pretty well naturalized in many parts of North America, the uppermost leaves are streaked with snowy white. In some tropical species brilliant shades of red, color these leaves. Again, in the Arum Family, it is the spathe or flower-leaf rather than the blossoms that appeals to the sense of sight, purple or mottled in the Skunk-cabbage, white in Calla Palustris.

In the Painted Cup we have a remarkable instance of this shifting of color from flower to leaf. The corolla of the Castilleia is pale yellow or reddish in dye, but the bract that accompanies each flower is of a livid scarlet. Castilleia Coccinea flourishes from Canada to Texas, blossoming in summer.



— 195 —  
 MOHAVEA BREVIFLORA.  
 (FIGWORT FAMILY.)  
 JUNE—AUGUST.



— 196 —  
 TWIN-FLOWER.  
 LINNÆA BOREALIS.  
 JULY.



PLATE 195.

MOHAVEA BREVIFLORA. (FIGWORT FAMILY.)

*Low, annual; stems slender, usually branched from the base; lower leaves opposite, the upper alternate, lanceolate, pointed at both ends, short-petioled; flowers axillary on short peduncles; calyx lobes five, narrowly oblong; corolla small, two-lipped with a rather conspicuous hairy palate; three of the five stamens rudimentary.*



MOST industrious traveler in the great West was Colonel, afterwards General Fremont. In 1842 he commanded a party which traveled from Missouri to the Wind River Mountains. The expedition returning reached Missouri only four months after starting. In the following year a more extended journey was undertaken. This time California and Oregon, then almost unknown to English speaking people, were reached and partly explored. Several accidents befell the party on the homeward path, and finally, a large part of the botanical collections were destroyed by a sudden rising of the Kansas River. What remained proved of great interest and value. A careful report on the plants collected was written by Dr. Torrey.

An unknown plant was discovered by the party on the banks of the Mohave River in California. This was described as a new genus by Dr. Gray. Until recently only one species of Mohavea, the Viscida, was known. It is a native of California and Arizona, blossoming in Spring. The flowers are yellow, dotted with purple. A second species has been collected during the Death Valley expedition, a plant with yellow flowers, obscurely dotted, sometimes not dotted at all, both are small, branching plants, not showy. Mohavea Breviflora was found at several points in the Death Valley. We would not be surprised to hear of this plant from British Columbia.

PLATE 196.

TWIN-FLOWER. LINNÆA BOREALIS. (HONEYSUCKLE FAMILY.)

*Sparingly pubescent, perennial; stems slender creeping, somewhat woody, leafy; leaves opposite, petioled, ovate or obovate to obicular, slightly crenate, veiny, thickish; flowers slender pedicelled, in pairs on a long, bracted peduncle; calyx small, five-toothed; corolla pale pink, campanulate-funnel-form, five-lobed, almost regular.*

"He saw beneath dim aisles, in odorous beds,  
The slight Linnæa hang its twin-born heads;  
And blessed the monument of the man of flowers,  
Which breathes his sweet fame through the northern bowers."

EMERSON.



LET whoever questions whether Emerson was a poet, find four lines from any other singer that describe a flower more beautifully. And no flower is better worthy to be beautifully described. Not only in its pure loveliness, but in its association with the man who gave to botany a form and a purpose, it belongs apart.

It is this shy creeping plant of the family of the Honeysuckles that the great Linnæus "the man of flowers," chose to bear his name. It formed part of the armorial bearings of his family, and was adopted by the Linnæan Society of London upon their coat of arms. Truly this small plant has been highly honored, yet with what a graceful modesty it bears its fame!

The Linnæa, as it should be, is found in the northern part of the North Temperate Zone, the world around. On the steppes of Siberia, in the pine forests of Norway, among the hills of Scotland, by the lakes of Maine and of Canada, Linnæa Borealis is still at home.



— 197 —  
ARIZONA SISYRINCHIUM.  
SISYRINCHIUM ARIZONICUM.  
JUNE—AUGUST.



— 198 —  
FLOWERING DOGWOOD.  
CORNUS FLORIDA.  
MAY.



PLATE 197.

ARIZONA SISYRINCHIUM. SISYRINCHIUM ARIZONICUM. (IRIS FAMILY.)

*Smooth and somewhat glaucous, perennial; stem leafy, erect from a cluster of thickened fibrous roots, slender, compressed, winged; root-leaves broadly-linear-lanceolate, prominently many-nerved rather long; stem leaves shorter, the two uppermost forming a spathe subtending the flower; flowers slender-pedicelled, large, bright yellow.*



EVERYBODY familiar with the delicate little blue-eyed grass will deem the idea of a yellow-flowered Sisyrinchium as very strange. Yet there are two species native in the Southwestern States which have bright lemon-yellow blossoms. Sisyrinchium Californicum, a native of moist meadows along the Pacific seaboard, extending from southern Oregon down to San Diego, is one of these. The other is Sisyrinchium Arizonicum, a plant of cool springy places in the mountains of the territory from which it takes its name. 'Tis a much larger plant than most of the Sisyrinchiums, with wide grass-like glaucous leaves, and showy large flowers. It was discovered at Willow Spring by Dr. Rothrock, flourishing at an elevation of about seven thousand feet. It has since been encountered in other localities in that most interesting region.

In the philosophy which explains the color of flowers, a change of hue—such as this from yellow to blue, as between Western and Eastern species—means response to an insect preferring the new color to the old one. The student of flowers must perforce study insects, whether he likes them or not. A view of Nature to be comprehensive, has to rise above the fences built for convenience sake between her fields.

The genus Sisyrinchium is entirely American, most of the species occurring in the tropical parts of North and South America. The blossoms are always delicate and ephemeral. Our common Eastern species Sisyrinchium Bermudianum, has been found in a bog in Western Ireland. Apparently it is truly indigenous there, improbable as that may seem. What bird, driven of the wind and tossed, in its plumage, or within its muddy claws, brought the seed from far America?

PLATE 198.

FLOWERING DOGWOOD. CORNUS FLORIDA. (DOGWOOD FAMILY.)

*Tree, usually small, sometimes forty feet high, bark grayish-brown; leaves opposite, short-petioled, ovate, acute at both ends, veiny, glaucous beneath; flowers in dense heads surrounded by an involucre of four white, petal-like, obcordate, veiny bracts; corolla small, greenish-yellow, of four petals.*

“ Dogwood-stars the slopes are studding,  
And I see  
Blossoms upon the purple-budding  
Judas tree.  
Aspen-tassels thick are dropping  
All about  
And the alder-leaves are cropping  
Broader out;

Mouse-ear tufts the hawthorn sprinkle,  
Edged with rose  
The dark bed of periwinkle  
Fresher grows.  
Up and down are midges dancing  
On the grass;  
How their gauzy wings are glancing  
As they pass.

What does all this haste and hurry  
Mean, I pray—  
All this out-door flush and flurry  
Seen to-day?  
This presaging stir and humming  
Chirp and cheer,  
Mean? it means that Spring is coming:  
Spring is here!”

MARGARET JUNKIN PRESTON.



ONVERT the slender creeping stem of the Bunch-berry into a stout tree-trunk, multiply its white-bracted flower cluster by thousands and increase its circle of four leaves into wide spreading umbrage, and you have the Flowering Dogwood. It is among the giants of the forest what the Bunch-berry is to the other low plants that nestle at their feet. Small but sturdy, and showier than all the rest. It is a splendid sight, the Dogwood, in early spring, when its white petal-like flower-leaves cover the almost naked branches and shine glorious amid the tender budding leafage of wood and copse,

“Snow-flakes that blush to be kissed by the sun.”

In summer it has a second flowering, this time a wealth of bright red, clustered berries. In autumn it blazes forth in a third glory of color. The leaves have turned scarlet and make the Dogwood resplendent in the bright October woods.

The Dogwood signifies “duration.” It is all the more lasting because a slow-grower at first. Thoreau has something to say of this: “I am struck by the fact that the more slowly trees grow at first, the sounder they are at the core, and I think the same is true of human beings.”

“The flower that blossoms earliest fades the first,” writes Southey. Fast growing trees like the Ailanthus soon decay.





— 199 —  
PALMERELLA DEBILIS SERRATA.  
(LOBELIA FAMILY.)



— 200 —  
PUBESCENT COLUMBINE.  
AQUILEGIA PUBESCENS.  
JUNE.



PLATE 199.

PALMERELLA DEBILIS SERRATA. (LOBELIA FAMILY.)

*Herbaceous, glabrous; stem slender, sparingly branched, erect, leafy; leaves linear-lanceolate, an inch or two long, very narrow, acute at both ends, sharply serrate, the uppermost reduced to narrow bracts; flowers in a terminal one-sided raceme on long slender peduncles; corolla two-lipped, the tube slender, exceeding the calyx.*



RE-EMINENT for beauty is the Lobelia Family of plants. The Lobelias themselves are almost always handsome. Some of the tropical species are exceedingly showy and bright-colored. In eastern North America the family is represented by the single genus Lobelia. In the West several other small genera of odd plants are found. The species of Downingia, small, smooth, much-branched plants of California, Oregon and Nevada, with deep blue, yellow-centered flowers are sometimes cultivated. Nemacladus, a tiny spreading herb with milky juice and flesh-colored blossoms, is found in the Sierras of California, in Arizona and in New Mexico, and strays may possibly be found in British Columbia.

Palmerella is a curious and little-known plant of California, a genus of a single species. It was discovered by Dr. Palmer, in the Tantillas Canon, near San Diego, in Southern California. The variety, depicted here, was first found by Dr. Rothrock in Ventura County. Gray named the genus in honor of the first finder.

Palmerella is a rather tall, slender, delicate plant, with narrow leaves and spreading branches. The blossoms are very Lobelia-like in appearance. The tube of the corolla, which splits open with age, is white, woolly-hairy on the inner surface. The limb or border is spreading, deep violet in color. It is altogether a very handsome little plant.

PLATE 200.

PUBESCENT COLUMBINE. AQUILEGIA PUBESCENS. (CROWFOOT FAMILY.)

*Stems erect from a stout, branching, scaly root-stock, glabrous near the base, pubescent above; root-leaves long petioled, ternately compound; leaflets three-parted, wedge-shaped, toothed; stem leaves smaller or wanting; sepals linear, acute; petals ending in long spurs.*



HOW plants have migrated in the ages of the past, how new surroundings have gradually transformed them, and much else of profound interest in the history of our planet, is ascertained when naturalists break new ground.

Aquilegia Pubescens is one of the new plants discovered by the recent government exploring expedition into the Death Valley of California, and published in the elaborate report of the botany of the expedition.

Few regions in the United States have attracted more attention than the Death Valley. The desolation of the sun-baked tract with its soil of hot alkaline sand, covered where it is dry with the characteristic creosote-bush and in moist places with greasewood, can hardly be exaggerated. Yet there has been a great deal of superstition about the Death Valley. The difficulty of obtaining drinkable water in that arid basin, where the soil is so alkaline as to be covered with a white incrustation of salts of soda, is chiefly responsible for the horror expressed in the Valley's name. Yet, dreary waste as it is, the Death Valley and the mountains that circle it have proved very interesting to the botanist; its rigors have produced in plants some remarkable modifications.

Our Rock-columbine of the eastern part of the continent, gives place in the West to many species, some with red flowers, some yellow, some blue, some purple. Aquilegia Pubescens is one of the yellow-flowered species, nearly related to Aquilegia Chrysantha. It was collected by Mr. Coville, in Tulare County, California, in the Sierra Nevada.



PLATE 201.

FLOWERING-FERN. OSMUNDA REGALIS. (FERN FAMILY.)

*Fronds smooth, rising from a thick, hard root-stock; lower part sterile, pinnules linear or oblong, serrate, obtusish at apex, rounded or subcordate at base, veins prominent; upper part of frond fertile, pinnules reduced to narrow branches of the rhachis, crowded with the cinnamon-brown sori, which are without indusium.*

"That tall fern,  
So stately, of the queen Osmunda named;  
Plant lovelier, in its own retired abode  
On Grasmere's beach, than naiad by the side  
Of Grecian brook, or Lady of the Mere,  
Sole-sitting by the shores of old romance."—WORDSWORTH.



RICHLY does the Flowering-fern deserve the name Regalis, for truly royal is its bearing. Unlike most Ferns, which love the shades of deep woods or dwell in the sheltered crevices of cliffs, the Osmunda grows boldly out in open bogs or meadows, and has no fear of being seen of all. The tall sterile fronds, bright, deep green in color, are in fine contrast with the smaller fertile frond, cinnamon-colored with the clusters of spores that closely cover it. A fern apart is the Osmunda. The fronds are little like those of Maiden-Hair or Lady-Fern—their beauty is their own.

Osmunda Regalis is found almost everywhere in North America, but especially in the northeastern part. It is also very common in Europe and in Asia. Two other species of Osmunda occur in the higher latitudes of North America. Osmunda Cinnamomea, a more common plant even than Osmunda Regalis, is a coarser and less attractive fern. Osmunda Claytoniana is also not uncommon in wide stretches of the Western World.

PLATE 202.

COFFEE-BUSH. STUARTIA PENTAGYNA. (TEA FAMILY.)

*Shrub, six feet or more high, bark gray-brown; leaves alternate, petioled, ovate or oblong, acute at both ends, obscurely serrate, pubescent and often yellowish beneath; flowers large, solitary; petals five or six, orbicular or obovate, crisped and dentate on the margin; stamens numerous; fruit a pointed five-angled capsule.*



HIGH favorites among cultivated plants are the magnificent Camellias, prized for their elegant foliage as well as for their handsome flowers. The Tea Rose, Camellia Japonica, grows to the size of a large tree in its home in the island empire of Eastern Asia. It is much cultivated in the South, becoming a large shrub that endures the mild winters of that latitude without protection. Two species of Camellia, separated by Linnæus as a distinct genus under the name of Thea, are among the most invaluable plants cultivated by man. These are Camellia (Thea) Viridis and Camellia Bohea, from whose varieties all the tea of commerce that is not manufactured from hay, is obtained.

Our nearest native ally of this beautiful genus is Stuartia, of which there are two species in the Southern States. One, Stuartia Virginica, inhabits the low country along the coast from Virginia southward. The other, Stuartia Pentagyna, is found in the Cumberland and Alleghany mountains, along the banks of streams from Kentucky to Georgia. It is a tall shrub, or perhaps, sometimes, a small tree. The foliage is not unlike that of Camellia Japonica, though of a much lighter green. The flowers are beautiful. The petals, five or six in number, are pure white within, but greenish or purplish and silky-haired without. The filaments of the stamens are usually dark purple:





— 201 —  
FLOWERING-FERN.  
*OSMUNDA REGALIS*.  
JUNE.



— 202 —  
COFFEE BUSH.  
*STUARTIA PENTAGYNA*.  
JUNE.



PLATE 203.

YELLOW MILKWORT. POLYGALA LUTEA. (MILKWORT FAMILY.)

*Stems smooth, erect, branching from the base, leafy; root-leaves obovate, the stem leaves smaller, lanceolate or spatulate, acute at both ends, veins, except the mid-nerve, not prominent; flowers in dense oblong spikes at the naked summits of the stems, bright orange in color.*



HEREVER we find bright color lavished on a flower, we may safely conclude that it is for the purpose of alluring insects for fertilization. Plants which are wind-fertilized, that is, which produce an abundance of pollen which is simply blown by the wind to the stigmas of other flowers, rarely or never have highly colored blossoms. That is the case with the pines and cedars, the willows and poplars, the grasses and sedges. Bright red or orange-yellow in a flower is almost always an invitation signal to the eyes of insects that fly by day. The Butterfly-weed is a good example. How well the bait succeeds may be noticed on any bright summer day, when the gay orange clusters are covered with a hungry swarm of insects great and small. In the case of the Cardinal-flower, it is the humming-bird for which mine host the plant hangs out his blood-red sign. Moreover, these vivid colors are almost always conjoined with some irregularity or added intricacy in the plan of the flower—making it the counterpart of the form of its winged minister. This is true in Cardinal-flower and Butterfly-weed. It is also illustrated in the Yellow Milkwort, whose oddly fashioned blossoms flaunt almost as vivid an orange as that displayed by the Butterfly-weed.

PLATE 204.

EPILOBIUM RIGIDUM. (EVENING-PRIMROSE FAMILY.)

*Smooth or nearly so, stems simple, erect, only a few inches high, from a slender root-stock; leaves on very short winged petioles, lower opposite, upper sub-alternate, from narrowly spatulate to obovate glaucous; flowers large, axillary to the bract-like upper leaves, slender peduncled; ovary covered with a fine white glandular pubescence; stigma large.*



EPILOBIUM Rigidum is one of the many species of the West. It grows in the Coast range in Oregon and strays North. It is a handsome plant, not tall, but upright and strict in its growth. The flowers are large and showy, of a rich rose purple color. While usually nearly smooth, there is a variety which has the stem and leaves covered with a dense, white pubescence. The capsule in which the seeds are contained is club-shaped. As in all other Epilobiums, it is four-celled. When the fruit is mature, the four valves split apart, usually curling up and allowing the seeds to escape. The capsule in this condition is very pretty.

With the exception of the Fire-weed, the native Epilobiums of eastern North America are not very showy plants. One European species, the Great Willow Herb, Epilobium Hirsutum, is naturalized in the Northeastern States and in Ontario. It is a handsome plant, with large purple blossoms. In England it goes by the odd name of "Codlins-and-Cream." Strangely enough, there are a great many Epilobiums in New Zealand. While the small flowered Epilobiums fertilize themselves, the species with large showy flowers that readily attract insects shed the pollen before the stigma of the same flower is ready to receive it, making cross-fertilization a necessity—with all the gain of strength where breeding in-and-in is avoided.



— 203 —  
 YELLOW MILKWORT.  
*POLYGALA LUTEA.*  
 JUNE.



— 204 —  
*EPILOBIUM RIGIDUM.*  
 (EVENING-PRIMROSE FAMILY.)  
 JULY.



PLATE 205.

BROAD LEAVED FIREWEED. EPILOBIUM LATIFOLIUM. (EVENING-PRIMROSE FAMILY.)

*Stem erect from a thick woody root-stock, much branched, smooth, at least at base, very leafy; leaves mostly opposite, ovate-lanceolate to linea-lanceolate, very obscurely toothed, nearly sessile, glaucous; flowers axillary on long slender peduncles, forming a terminal, leafy raceme; petals large, narrowly obovate; pod rather short, curved; seeds very small, with dirty white coma or hairs.*



THE genus Epilobium is a very large one, especially in the temperate zones. It is chiefly in mountainous regions that the species are found. They are much alike, for the most part, and it is one of the difficulties of plant classification to distinguish the different forms. They appear to grade into each other. Some closely allied species are thought to hybridize, but that suspicion is always difficult to prove. Most of the Epilobiums are handsome plants. Some are very showy, with large flowers. These are usually white, pink or violet in color. The seeds are very interesting and afford valuable characters for classification. They are very small, brown in color, and are often covered with tiny projections like the papillæ of the tongue. They are furnished with a tuft of hairs or "coma," which is an outgrowth from the seed-coat. These hairs are white, tawny, or cinnamon-colored. By means of them the seed is carried a long distance by the wind—that chief of sowers.

Like many plants of high northern latitudes, Epilobium Latifolium is widely distributed in the northern hemisphere. It occurs in Arctic America, Europe and Asia. In North America it extends southward to Colorado.

PLATE 206.

WILD MOCK-ORANGE. PHILADELPHUS INODORUS. (SAXIFRAGE FAMILY.)

*A tall shrub with straggling, branching gray-barked stems; leaves opposite, short-petioled, broadly ovate, acuminate at apex, coarsely dentate, smooth or pubescent beneath, prominently three-veined; flowers large in cymes at the ends of the twigs; petals obovate, white, much longer than the acute calyx-lobes.*



ANY a good man and woman bears a grudge against parents otherwise beloved. Why did father, or mother, on the fateful day of baptism, give to an innocent victim such a name as Adlia or Aminadab, Jemima or Mehetabel? In naming places as well as children there is the same plentiful lack of fitness or originality. Great are the responsibilities of a christener; seldom does he heed them! As with men and women, villages and cities, so with plants.

It is a pity that the beautiful Mock-orange, so fair and fragrant in itself and with so decided an individuality, if one may so express it, should be called Mock-orange. The superb white, golden-hearted blossoms are different enough from those of the Orange to make it worthy of a name of its own. Yet it has come to signify "Counterfeit" because of this mythical resemblance. Its other popular name, Syringa, belongs of right to the Lilacs.

There are several very beautiful species of Philadelphus in North America, although none of them are quite the peers of the Mock-orange, Philadelphus Coronarius, which is originally of Southern Europe. Philadelphus Inodorus is very similar in leaf and flower, but lacks perfume. It is a tall shrub with slender, gracefully curved branches. Usually quite smooth, it is sometimes more or less hairy. It dwells by the banks of streams in the mountains of the Southern States, from Virginia to Alabama. The large, pure white blossoms open in May. The southern mountain region is the very paradise of handsome flowering shrubs.

A smaller species, Philadelphus Hirsutus, is found on cliffs along the rivers of the Southern States. A handsome western species is Philadelphus Lewisii.





— 205 —  
BROAD-LEAVED FIREWEED.  
*EPILOBIUM LATIFOLIUM*.  
AUGUST.



— 206 —  
WILD MOCK-ORANGE.  
*PHILADELPHUS INODORUS*.



PLATE 207.

OENOTHERA XYLOCARPA. (EVENING-PRIMROSE FAMILY.)

*Perennial, from a deep thickened root, acaulescent; leaves on long petioles, pinnatifid, with the broadly ovate, heart-shaped terminal lobe much the largest, pubescent; flowers axillary, sessile; calyx with a slender, hirsute tube; petals large, obversely heartshaped; capsule tapering from base to apex, four-winged, sessile.*



OENOTHERA is almost entirely an American genus. Only a single species, a native of Tasmania, is indigenous outside of North and South America, though several are introduced into Europe. It is in the parts of North America, beyond the tropics, that the genus is at its best. On the grassy prairies and arid regions of the Western States and Canada there are a great many species. Most of them have large yellow flowers. Some few are pink flowered, others white. *Oenothera Rosea*, a handsome species of the Southwest, has showy, rose-purple blossoms. In the allied genera, *Godetia* and *Boisduvalia*, now usually considered as sections of *Oenothera*, the flowers are rose-colored or lilac. Most of the species that have white or yellow flowers turn reddish in withering. These plants are very diverse in habit. Some are erect and strict. Others branch widely. A great many of the prairie and desert species are almost stemless, with the leaves in rosettes on the ground and the flowers on naked stalks. Such is the mode of growth of *Oenothera Xylocarpa*, a species recently discovered in the Death Valley in California. As is stated in the report of the expedition, "The plant grew in the well-drained granitic soil that surrounds the meadows." Because plants usually flourish best on a special kind of soil they hint to the geologist and the miner what kind of rocks they are likely to find beneath.

PLATE 208.

STORKSBILL. ERODIUM CICUTARIUM. (GERANIUM FAMILY.)

*Annual; stem slender, much branched, pubescent; leaves alternate, pinnately dissected, primary segments rather remote, hairy; flowers small, in umbel like clusters on long, spreading axillary peduncles; petals five in number, small; carpels five, beaked with the long styles which roll back from the axis and become twisted with age.*



ERODIUM *Cicutarium* is a plant of the northern part of the northern hemisphere, circling the globe. It is common in Europe and Asia. In eastern North America it is known only where it has been introduced from Europe, but in the northwestern part of the continent it is undoubtedly native.

The Storksbill is a low plant, covered all over with soft hairs which are usually more or less viscid. When very young the stems are erect, but soon incline to spread out and form tufts. The flowers are small, and of a pale pink or purple color. They grow in a cluster, usually of three or four, but sometimes as many as twelve. The fruit is the most strikingly characteristic part of the plant. It consists of five carpels, each tipped with a long rigid style. These, attached in a ring about a central axis, form the fancied "stork's bill." When ripe, however, the illusion is rudely dispelled, for the styles curl up, leaving the axis exposed.

*Erodium* is from the Greek name for the heron, doubtless in allusion to the beak-like fruit. The genus is closely allied to *Geranium*.





— 207 —

CEANOTHUS XYLOCARPA.  
(EVENING-PRIMROSE FAMILY.)



— 208 —

STORKSBILL.  
ERODIUM CICUTARIUM.



Any publisher who reproduces in a book form, the material of a science and at a cheap price is a public benefactor.

**W. T. Harris,**

*Chairman U. S. Bureau Education, Washington.*  
(Referring to Wild Flowers of America.)

Its scope and completeness fills a long needed want.

**J. Z. George,**

*U. S. Senator.*

A most beautiful acquisition to the libraries of those who love the beautiful in nature.

**E. H. Funston,**

*U. S. Congressman, Graduate Marietta College,  
ex-President State Senate.*

"Wild Flowers of America," both in color and detail, true to nature.

**Amos J. Cummings,**

*U. S. Congressman.*

"Wild Flowers of America" by G. H. Buek & Co., is one of the best things I have seen. Illustrations of American plants and flowers most complete.

**U. S. Congressman, John S. Williams,**

*Graduate of Universities of the South, of Virginia and of Heidelberg.*

Most artistic and beautiful as well as accurate and true to nature.

**U. S. Senator James Z. George,**

*Ex-Chief Justice, Mississippi.*

For purposes of popular education, Buek's "Wild Flowers of America" cannot be excelled.

**U. S. Congressman Brosius.**

The beauty and artistic excellence of the colored drawings are worthy of high praise.

**J. Havens Richards,**

*President Georgetown College, West Washington, D. C.*

Both beautiful and interesting.

**J. V. Cockrill,**

*Graduate Chapel Hill College.*

Up to the time of going to press two million two hundred and forty thousand copies of "Wild Flowers" are in the hands of people who are buying these "Wild Flower" portfolios. Any one who wants to secure them for friends should do so now. It's a passing opportunity.

"Wild Flowers of America" are so complete and comprehensive as a collection of all the flora of our country, that I cannot too strongly express my commendation of it as a popular educator.

**Amos J. Cummings.**

Am greatly pleased with it. I predict great popularity for the publication.

**W. H. Hatch,**

*U. S. Congressman and Chairman U. S. Committee on Agriculture.*

"Wild Flowers of America," most complete and accurate.

**Amos J. Cummings,**

*Congressman, Washington.*

Buek's "Wild Flowers of America" will receive unanimous favor from all lovers of the beautiful. Its correctness and completeness make it one of the most valuable contributions to American literature.

**Chas. H. Morgan,**

*U. S. Congressman.*

Am impressed with the beauty and usefulness of the publication, and strongly endorse it as an educational work.

**S. B. Cooper,**

*U. S. Congressman.*

I unhesitatingly recommend the work as a book of instruction to the people of every country.

**Antonio Joseph,**

*U. S. Congressman.*

The finest publication in the field of Botany I have ever seen.

**U. S. Congressman Brosius,**

*Graduate Ann Harbor University.*

Regarding Buek's "Wild Flowers of America" I have no knowledge of anything that approaches them in perfection of form or color.

**Mrs. John A. Logan,**

*Washington.*

(And thousands of others.)



